SUPERSTORE DATA ANALYSIS

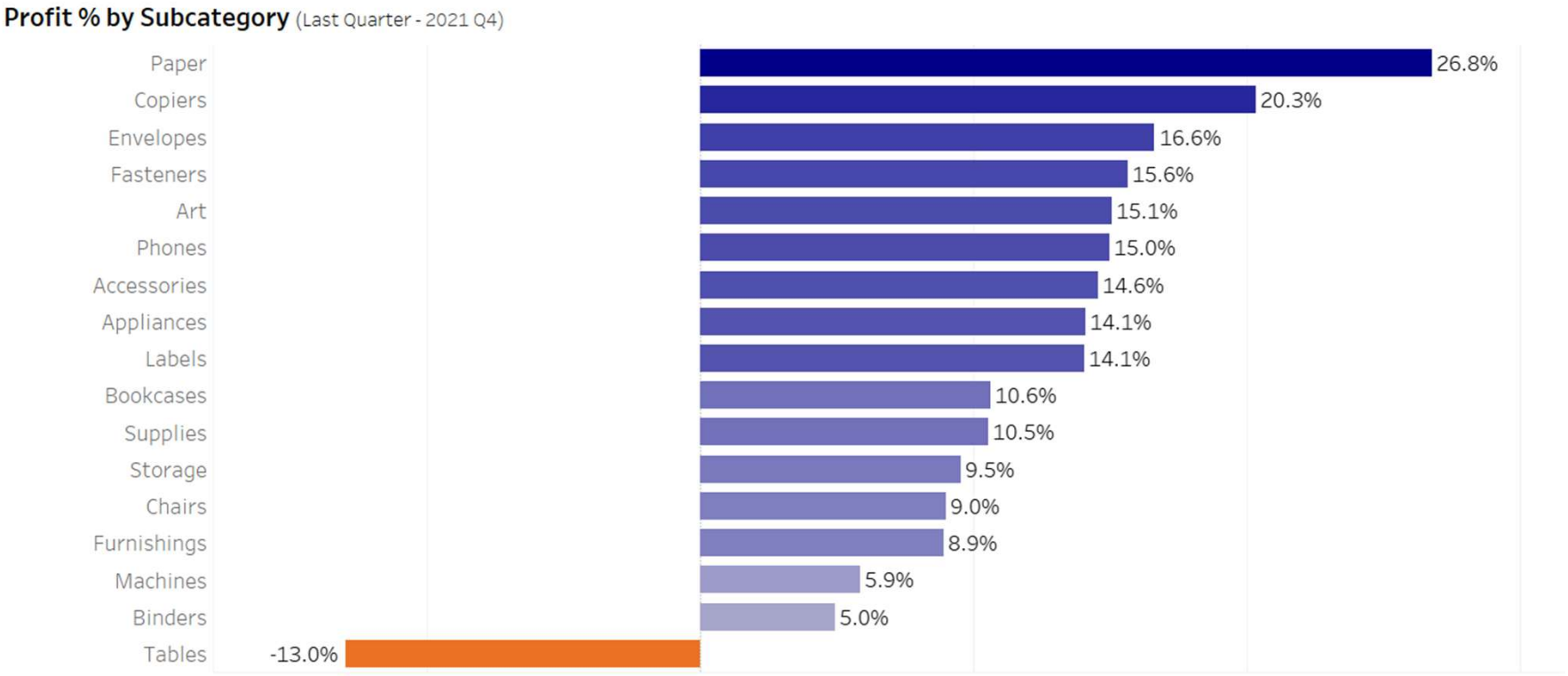
- Interview Assignment for the Data Analyst Role

Assignment Details

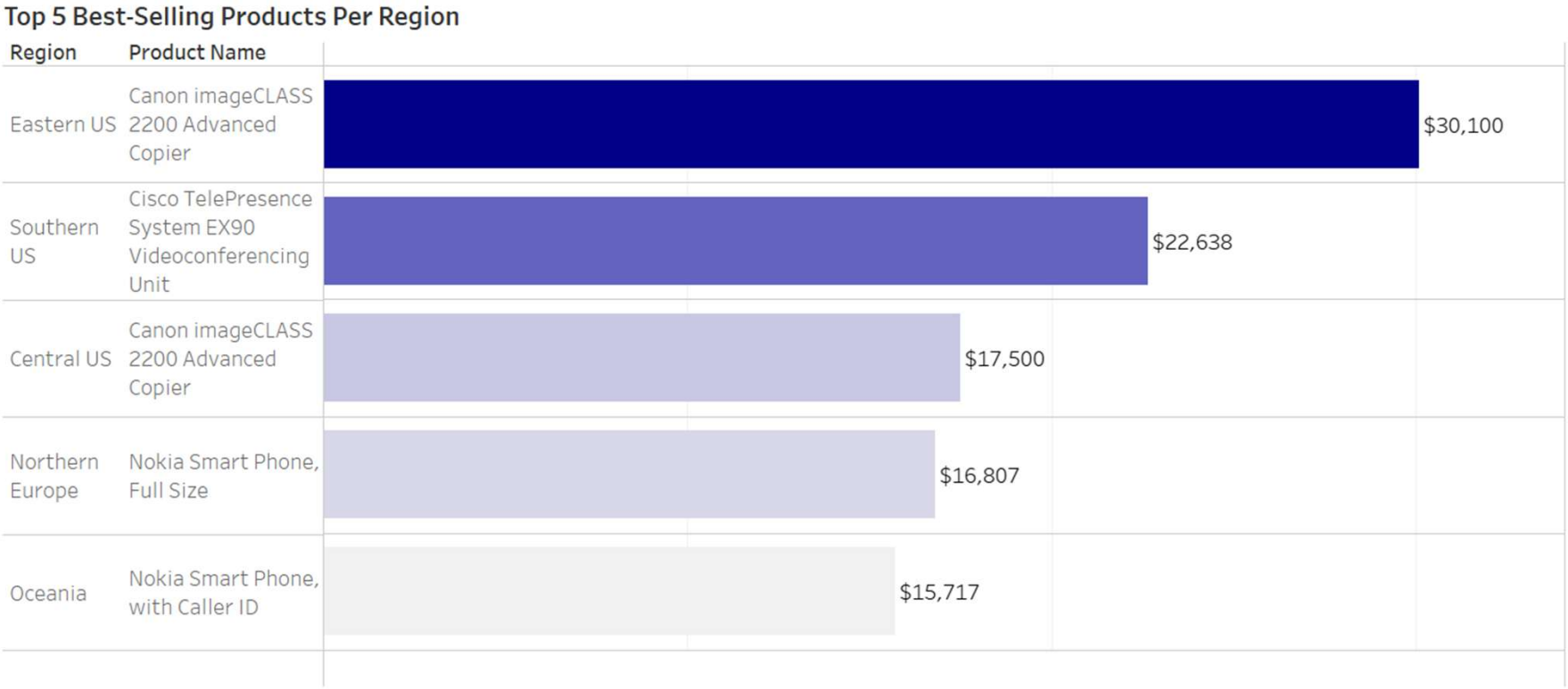
Please analyze the following and present your findings in a short report and interactive dashboard (Using BI tool):

1. Calculate and visualize the profit percentage from each subcategory in the last quarter.
2. Create a dashboard showing:
    a) The top 5 best-selling products per region.
    b) The highest-selling salesperson (and their respective sales volume).
    c) Year-over-year sales trends for the Technology category.
3. Add columns to the People Excel spreadsheet displaying total sales and total returns per person.
4. Using SQL, write a query that calculates total sales and returns by region and category.
5. Based on the data and your findings, provide 2-3 business recommendations on how the company can improve its performance

1. Calculate and visualize the profit percentage from each subcategory in the last quarter



2a. The top 5 best-selling products per region

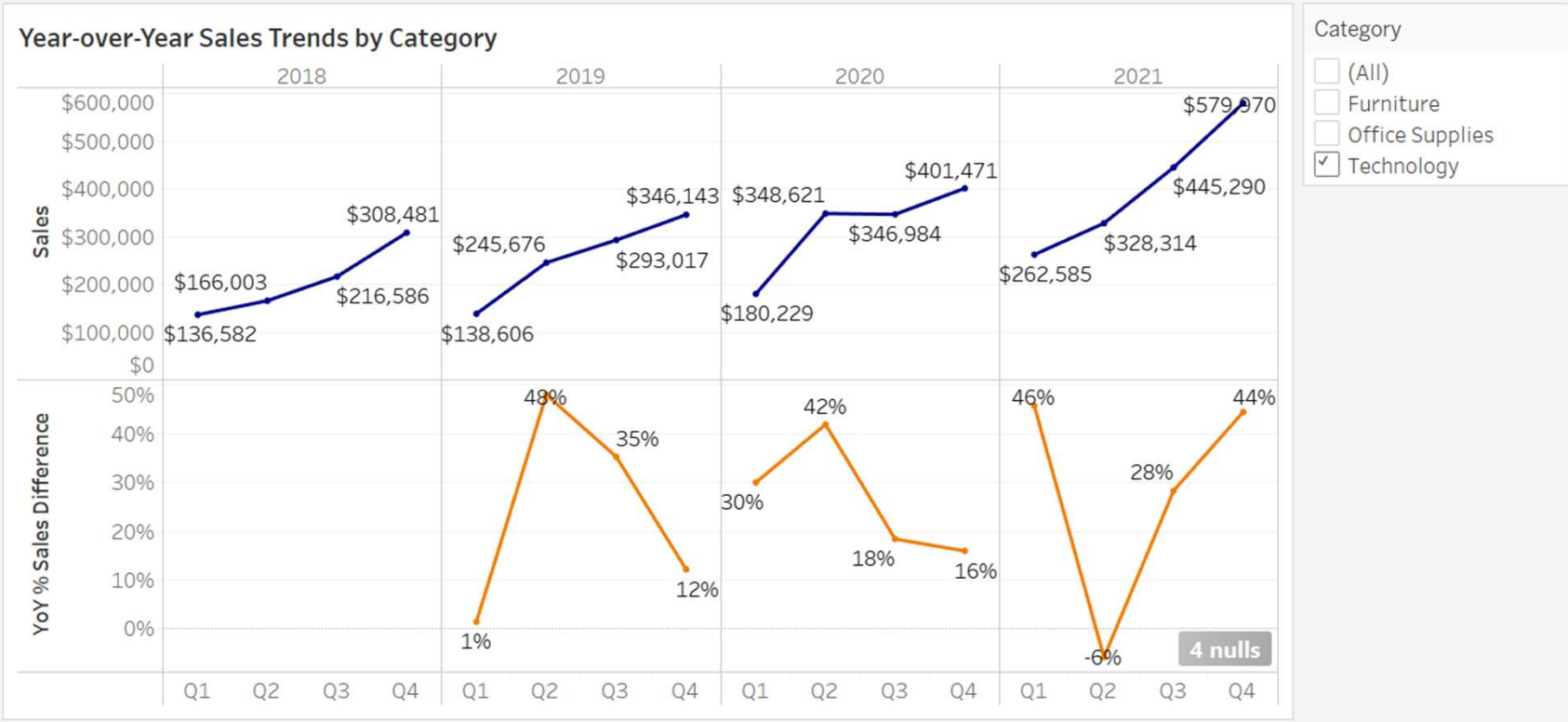


2b. The highest-selling salesperson (and their respective sales volume)

Top Salesperson

Gilbert Wolff
Sales:
$1,731,931
Region:
Western Europe

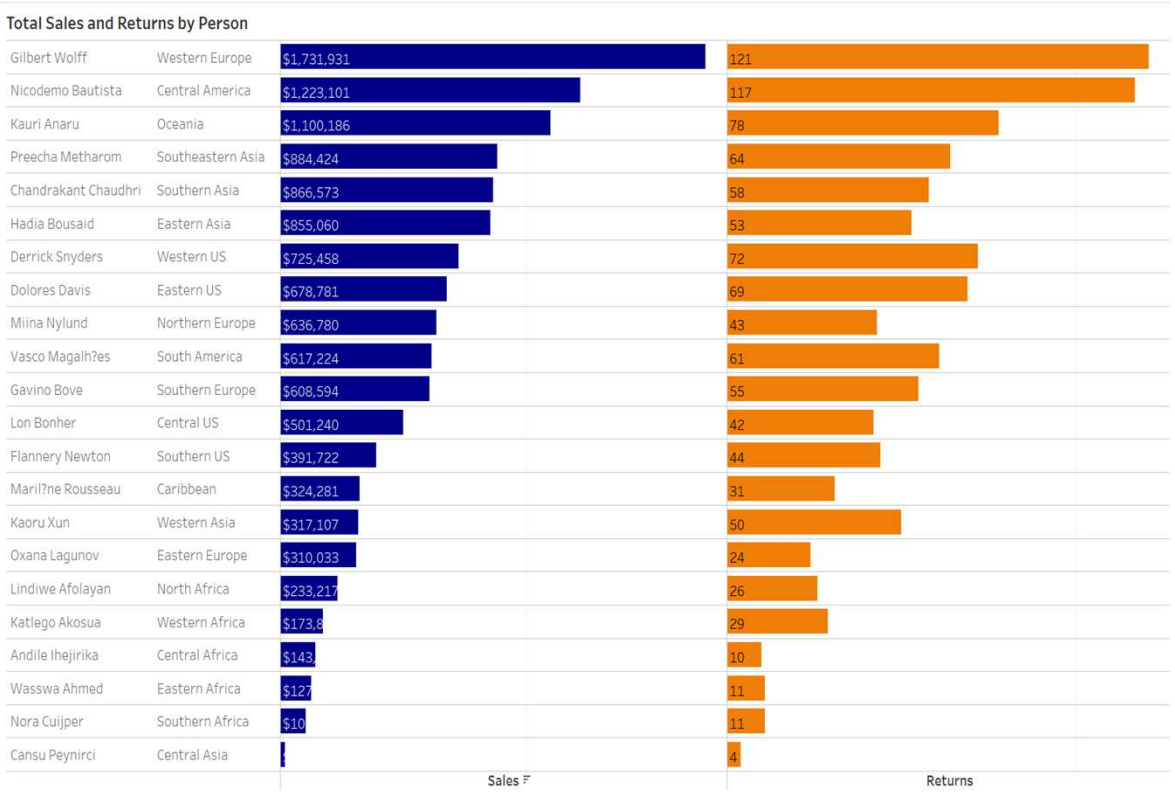
2c. Year-over-year sales trends for the Technology category



3. Add columns to the People Excel spreadsheet displaying total sales and total returns per person.

	A	B	C	D	E	F
1	Person	Region	Total Sales	Total Returns		
2	Marilène Rousseau	Caribbean	$ 324,280.86	31		
3	Andile Ihejirika	Central Africa	$ 143,630.01	10		
4	Nicodemo Bautista	Central America	$ 1,223,100.63	117		
5	Cansu Peynirci	Central Asia	$ 19,311.46	4		
6	Lon Bonher	Central US	$ 501,239.89	42		
7	Wasswa Ahmed	Eastern Africa	$ 127,856.02	11		
8	Hadia Bousaid	Eastern Asia	$ 855,059.39	53		
9	Lynne Marchand	Eastern Canada	#N/A	5		
10	Oxana Lagunov	Eastern Europe	$ 310,033.44	24		
11	Dolores Davis	Eastern US	$ 678,781.24	69		
12	Lindiwe Afolayan	North Africa	$ 233,216.61	26		
13	Miina Nylund	Northern Europe	$ 636,779.16	43		
14	Kauri Anaru	Oceania	$ 1,100,184.61	78		
15	Vasco Magalhães	South America	$ 617,223.68	61		
16	Preecha Metharom	Southeastern Asia	$ 884,423.17	64		
17	Nora Cuijper	Southern Africa	$ 105,191.76	11		
18	Chandrakant Chaudhri	Southern Asia	$ 866,572.68	58		
19	Gavino Bove	Southern Europe	$ 608,593.97	55		
20	Flannery Newton	Southern US	$ 391,721.91	44		
21	Katlego Akosua	Western Africa	$ 173,878.81	29		
22	Kaoru Xun	Western Asia	$ 317,106.96	50		
23	Angela Jephson	Western Canada	#N/A	1		
24	Gilbert Wolff	Western Europe	$ 1,731,929.67	121		
25	Derrick Snyders	Western US	$ 725,457.82	72		
26						

TotalReturnsByRegion | TotalSalesByRegion | Orders | Returns | People



4. Using SQL, write a query that calculates total sales and returns by region and category

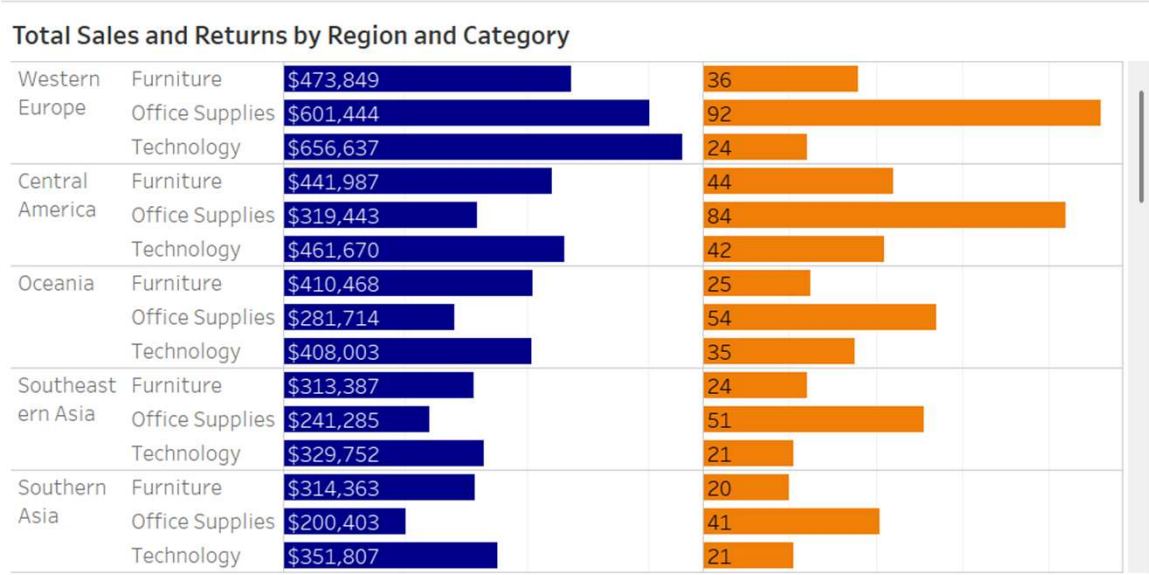
SQLQuery1.sql - loc...-7818TEA\dell (64))*

```sql
WITH SalesData AS (
    SELECT
        Region,
        Category,
        SUM(Sales) AS Total_Sales
    FROM [dbo].[global_superstore_orders_1]
    GROUP BY Region, Category
),
ReturnsData AS (
    SELECT
        o.Region,
        o.Category,
        COUNT(r.Order_ID) AS Total_Returns
    FROM [dbo].[global_superstore_orders_1] o
    JOIN global_superstore_returnes r ON o.Order_ID = r.Order_ID
    WHERE r.Returned = 'Yes'
    GROUP BY o.Region, o.Category
)
SELECT
    s.Region,
    s.Category,
    s.Total_Sales,
    COALESCE(r.Total_Returns, 0) AS Total_Returns
FROM SalesData s
LEFT JOIN ReturnsData r ON s.Region = r.Region AND s.Category = r.Category
ORDER BY s.Region, s.Category;
```

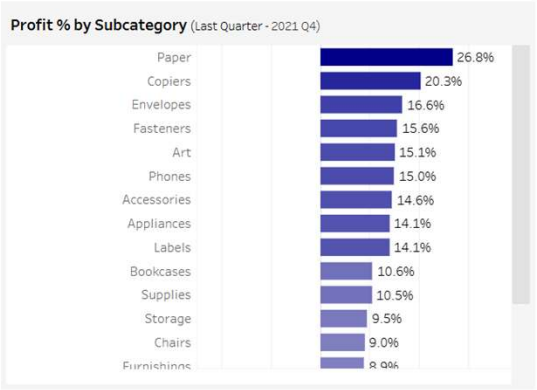
100 %

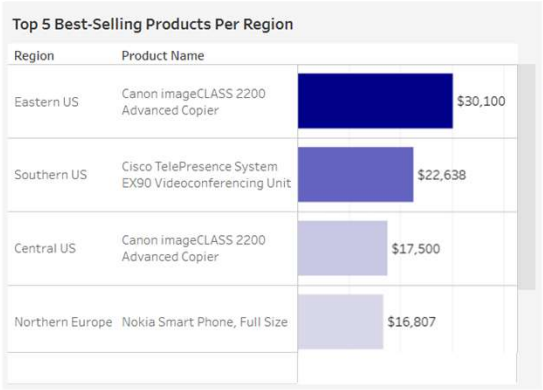
Results | Messages

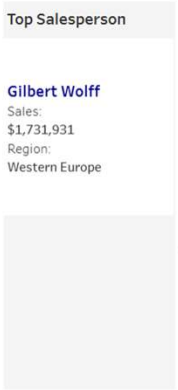
	Region	Category	Total_Sales	Total_Returns
1	Canada	Furniture	10595.279964447	1
2	Canada	Office Supplies	30034.0800659657	12
3	Canada	Technology	26298.8099861145	2
4	Caribbean	Furniture	118372.390032291	19
5	Caribbean	Office Supplies	89575.4397740364	37

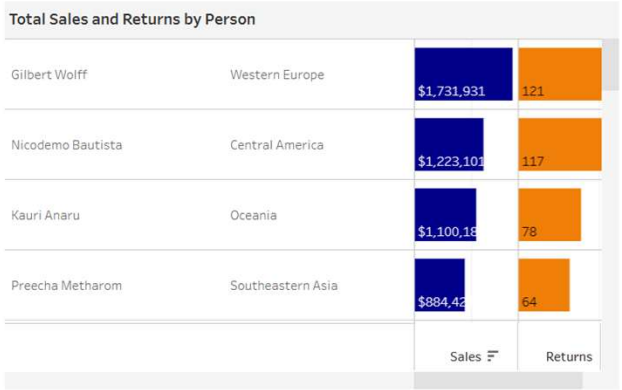


SUPERSTORE DASHBOARD









5. Based on the data and your findings, provide 2-3 business recommendations on how the company can improve its performance

Optimize High-Return Categories

Issue:

Office Supplies and Technology have the highest return rates, especially in **Western Europe and Central America**.

Recommendation:

- **Conduct a Root Cause Analysis** on returns by region and category (e.g., quality defects, shipping errors).
- **Improve Product Descriptions & Customer Support** to set better expectations and reduce returns.
- **Enhance Return Policies & Reverse Logistics** to minimize revenue loss while keeping customer satisfaction high.

Impact:

Reducing returns by even **10-15%** in key regions could **significantly improve profit margins** and reduce operational costs.

Expand into Low-Performing Regions

Issue:

Sales in **North Africa, Central Africa, Western Africa, and Central Asia** are **low**, limiting overall market reach.

Recommendation:

- **Expand Digital & E-commerce Channels**: Improve online presence and consider partnerships with local e-commerce platforms.
- **Develop Region-Specific Pricing & Promotions**: Offer localized discounts and bundled deals to attract customers.

Impact:

Even a **5-10% sales increase** in underperforming regions could unlock **new revenue streams and increase market share**.

Leverage Seasonal Sales Trends

Issue:

Technology & Office Supplies drive the highest revenue, but quarterly fluctuations.
Sales **peak in Q4** but need **better forecasting and inventory management**.

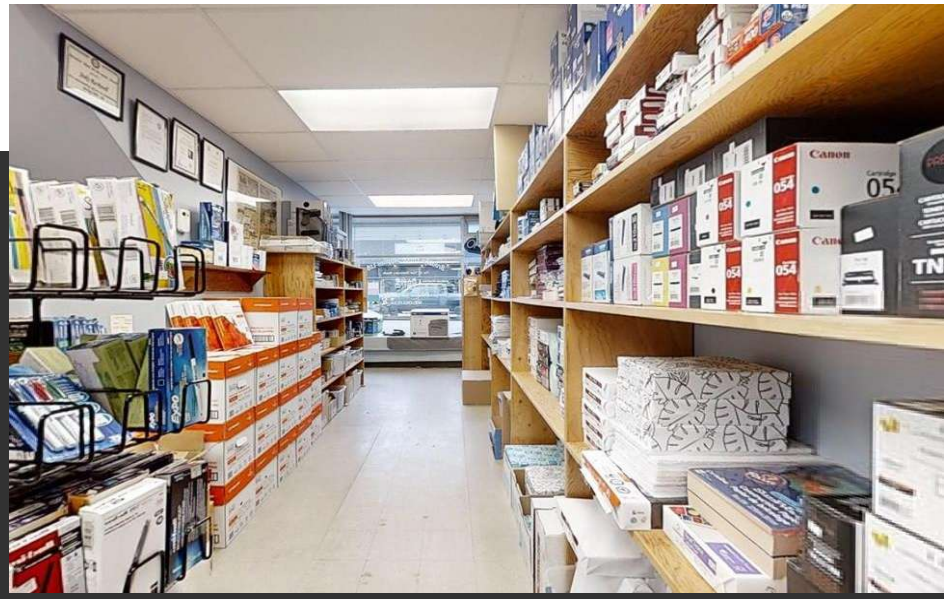
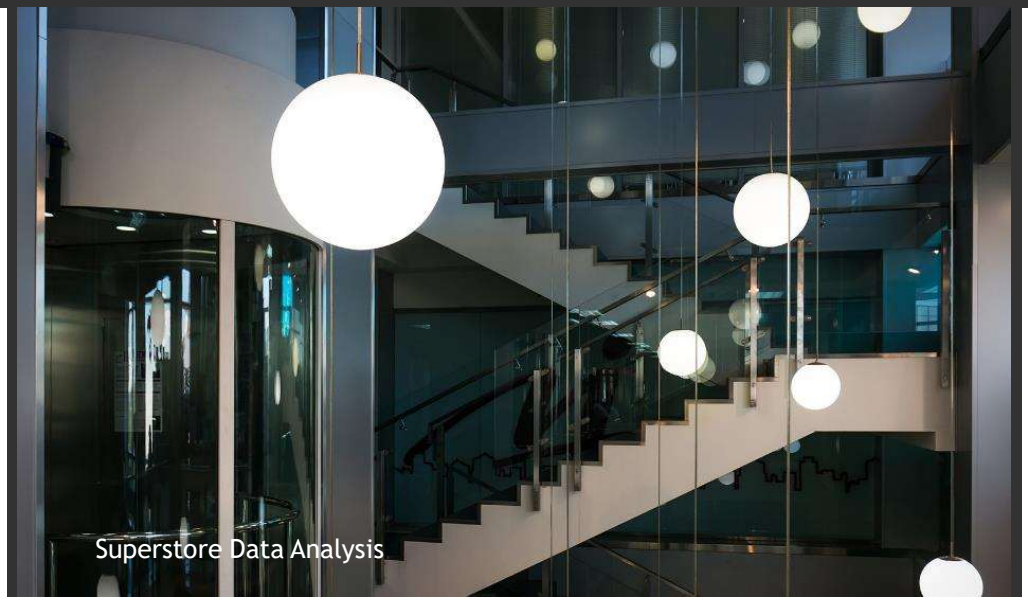
Recommendation:

- **Plan for Seasonal Demand**: Use **historical sales data** to prepare for peak periods (Q4) with optimized stock levels and targeted marketing.
- **Upsell & Bundle High-Margin Products**: Combine **Office Supplies + Technology deals** to boost revenue.

Impact:

A **better Q4 sales strategy** could drive a **15-20% increase in peak-season revenue** and improve overall profitability.

Final Thoughts

By focusing on return reduction, market expansion, and seasonal sales optimization, the company can increase revenue, reduce losses, and expand its global market presence.

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